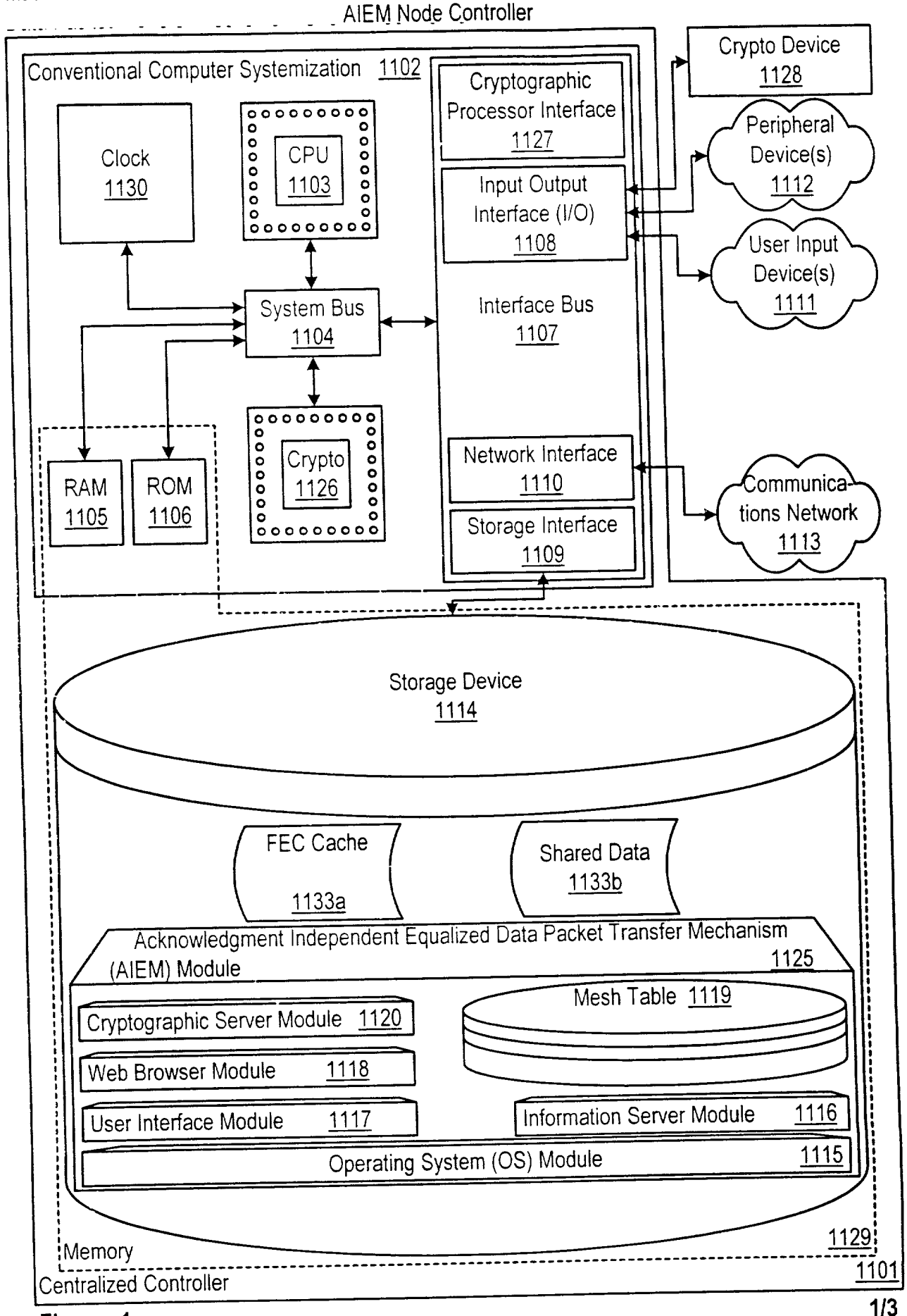
AIEM Node Controller
Conventional Computer Systemization 1102
Clock 1130
CPU 1103
System Bus 1104
RAM 1105
ROM 1106
Crypto 1126
Cryptographic Processor Interface 1127
Input Output Interface (I/O) 1108
Interface Bus 1107
Network Interface 1110
Storage Interface 1109
Crypto Device 1128
Peripheral Device(s) 1112
User Input Device(s) 1111
Communications Network 1113
Storage Device 1114
FEC Cache 1133a
Shared Data 1133b
Acknowledgment Independent Equalized Data Packet Transfer Mechanism (AIEM) Module 1125
Mesh Table 1119
Cryptographic Server Module 1120
Web Browser Module 1118
User Interface Module 1117
Information Server Module 1116
Operating System (OS) Module 1115
Memory 1129
Centralized Controller 1101

Figure 1

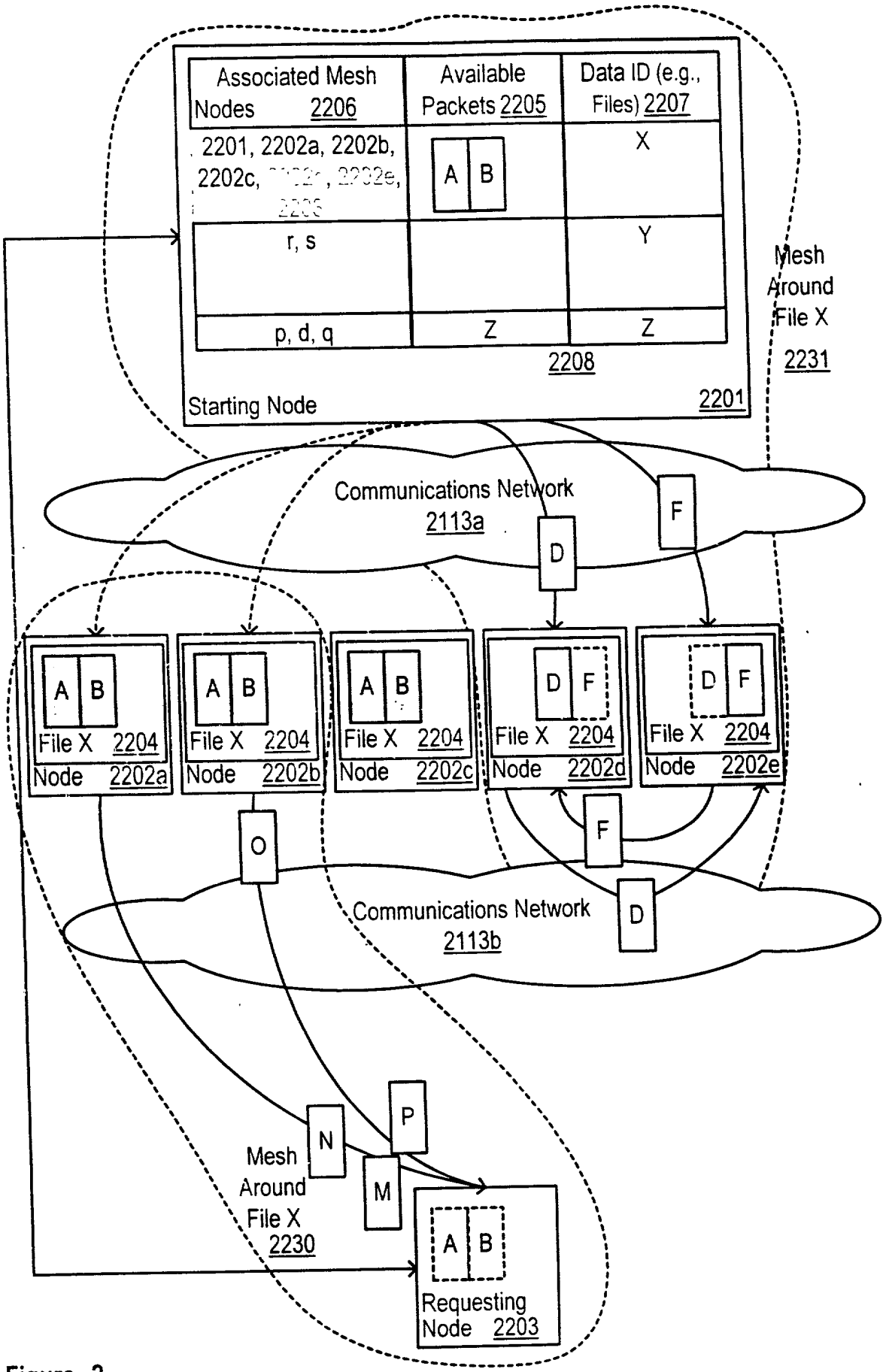
Associated Mesh Nodes 2206
Available Packets 2205
Data ID (e.g., Files) 2207
2201, 2202a, 2202b, 2202c, 2202e,
A B
X
r, s
Y
p, d, q
Z
Z
2208
Starting Node
2201
Mesh Around File X
2231
Communications Network
2113a
D
F
File X 2204
Node 2202a
Node 2202b
Node 2202c
Node 2202d
Node 2202e
O
F
Communications Network
2113b
D
N
P
M
Mesh Around File X
2230
Requesting Node 2203

Figure 2

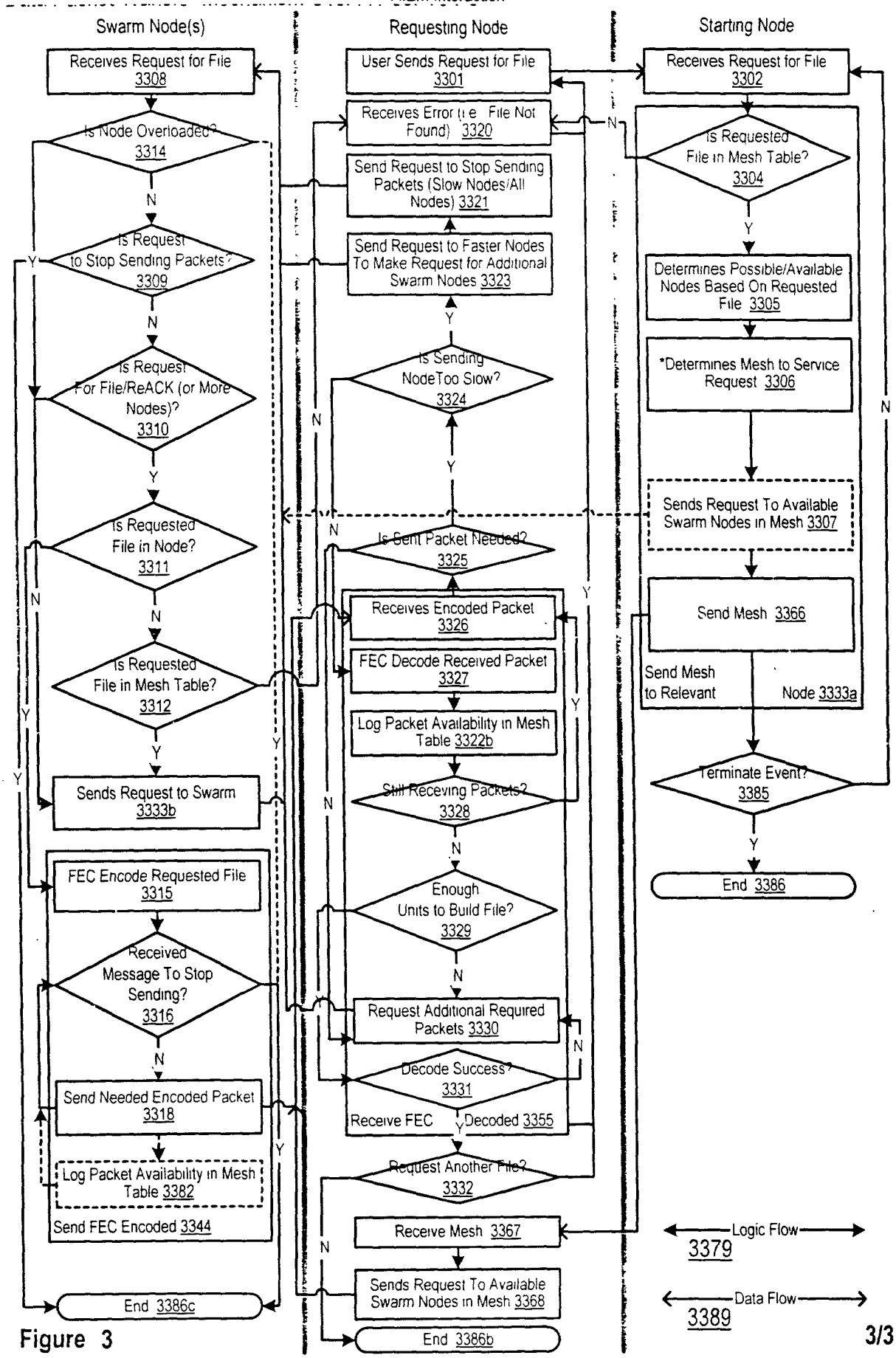
AIEM Interaction
Swarm Node(s)
Requesting Node
Starting Node
Receives Request for File 3308
User Sends Request for File 3301
Receives Request for File 3302
Is Node Overloaded? 3314
Receives Error (i.e. File Not Found) 3320
Is Requested File in Mesh Table? 3304
Send Request to Stop Sending Packets (Slow Nodes/All Nodes) 3321
Is Request to Stop Sending Packets? 3309
Send Request to Faster Nodes To Make Request for Additional Swarm Nodes 3323
Determines Possible/Available Nodes Based On Requested File 3305
Is Request For File/ReACK (or More Nodes)? 3310
Is Sending NodeToo Slow? 3324
*Determines Mesh to Service Request 3306
Is Requested File in Node? 3311
Is Sent Packet Needed? 3325
Sends Request To Available Swarm Nodes in Mesh 3307
Receives Encoded Packet 3326
Send Mesh 3366
Is Requested File in Mesh Table? 3312
FEC Decode Received Packet 3327
Send Mesh to Relevant Node 3333a
Log Packet Availability in Mesh Table 3322b
Terminate Event? 3385
Sends Request to Swarm 3333b
Still Receving Packets? 3328
End 3386
FEC Encode Requested File 3315
Enough Units to Build File? 3329
Received Message To Stop Sending? 3316
Request Additional Required Packets 3330
Decode Success? 3331
Send Needed Encoded Packet 3318
Receive FEC Decoded 3355
Log Packet Availability in Mesh Table 3382
Request Another File? 3332
Send FEC Encoded 3344
Receive Mesh 3367
Logic Flow 3379
Sends Request To Available Swarm Nodes in Mesh 3368
Data Flow 3389
End 3386c
End 3386b

Figure 3